MIAMI–DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, FL 33175
T (786) 315–2590 F (786) 315–2599
www.miamidade.gov/economy

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

WinDoor, Inc.
104 Triple Diamond Blvd.
North Venice, FL 34275

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami–Dade County RER–Product Control Section to be used in Miami–Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami–Dade County Product Control Section (In Miami–Dade County) and/ or the AHJ (in areas other than Miami–Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami–Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "9000 Shallow 180° Thermally Broken" Clipped Aluminum Mullion - L.M.I.

APPROVAL DOCUMENT: Drawing No. **180^0 TB-LMI-NOA**, titled "9000 Series Shallow 180° Vertical Mullion – LMI", sheets 1 through 5 of 5, dated 08/17/20, prepared, signed and sealed by Anthony Lynn Miller, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and Expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami–Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises NOA No. 17-1219.37** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Sifang Zhao, P.E.**

S. Z.

11/19/2020

WinDoor, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under previous NOA No. 13-0723.02)

2. Drawing No. **180⁰. TB-LMI-NOA**, titled "9000 Series Shallow 180° Vertical Mullion – LMI", sheets 1 through 5 of 5, dated 08/17/20, prepared, signed and sealed by Anthony Lynn Miller, P.E.,

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of a series 9020 thermally broken aluminum fixed windows with 180° thermally broken field mullion, prepared by National Certified Testing Laboratories, Inc., Test Report No. **NCTL-210-3774-4**, dated 07/25/12, signed and sealed by Gerard J. Ferrara, P.E.
(Submitted under previous NOA No. 13-0723.02)

C. CALCULATIONS:

1. Anchor verification calculations, complying with **FBC 6th Edition (2017)**, dated 11/28/17, prepared, signed and sealed by Luis R. Lomas, P.E.
(Submitted under previous NOA No. 17-1219.37)

2. Anchor verification calculations and structural analysis, complying with **FBC-2010**, dated 09/04/12, 07/11/13 and revised on 08/27/16 to comply with **FBC 5th Edition (2014)**, prepared, signed and sealed by Luis R. Lomas, P.E.
(Submitted under previous NOA No. 13-0723.02)

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. Material Data Sheet for "insulating profiles made of PA 66 GF25 – dry impact resistant, to fit into Technoform I-Strut™ Aluminum Standard Reglet.
(Submitted under previous NOA No. 13-0723.02)

2. Test report No. **ATI-61261.01-106-18**, prepared by Architectural Testing, Inc., dated 12/08/05, with revision date 01/04/06, issued to **Technoform**, for their **I-Strut Insulating Strip** comprised of Polyamide with 25% glass fibers, per **ASTM D635–03** "Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position" and ASTM **D2843-99** "Standard Test Method for the Density of Smoke from the Burning Decomposition of Plastics", signed and sealed by Joseph A. Reed, P.E.
(Submitted under previous NOA No. 13-0723.02)

Sifang Zhao, P.E.
Product Control Examiner
NOA No. 20-0826.10
Expiration Date: October 03, 2023
Approval Date: November 19, 2020

E. MATERIAL CERTIFICATIONS (CONTINUED)

3. Test report No. **ETC-07-1043-19094.0**, prepared by ETC Laboratories, dated 02/04/08, issued to Technoform Bautec NA, Inc., for their **I-Strut Insulating Strip** comprised of Polyamide with 25% glass fibers, per **ASTM D638–03** *"Standard Test Methods for Tensile Properties of Plastics"*, for exposed & unexposed sample per Xenon Arc after 4500 Hours, signed and sealed by Joseph Labora Doldan, P.E.
(Submitted under previous NOA No. 13-0723.02)

4. Test report No. **ETC-08-1043-20974.0**, prepared by ETC Laboratories, dated 07/01/08, issued to Technoform, for their **I-Strut Insulating Strip** comprised of Polyamide with 25% glass fibers, per **ASTM D1929–96** *"Standard Test Method for Ignition Properties of Plastics"*, signed and sealed by Joseph Doldan, P.E.
(Submitted under previous NOA No. 13-0723.02)

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 6th Edition (2017)**, and of no financial interest, dated 11/28/17, issued, signed and sealed by Luis R. Lomas, P.E.

2. Laboratory compliance letter for Test Report No. **NCTL-210-3774-4**, issued by National Certified Testing Laboratories, Inc., dated 07/25/12, signed and sealed by Gerard J. Ferrara, P.E.
(Submitted under previous NOA No. 13-0723.02)

3. Proposal No. **11–1698** issued by the Product Control Section, dated 02/28/12, signed by Manuel Perez, P.E.
(Submitted under previous NOA No. 13-0723.02)

4. Statement letter of conformance, of complying with FBC 6th Edition (2017), and FBC 7th Edition (2020), and of no financial interest, dated July 29, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

5. Notification of Successor Engineer for manufacturer's NOA document per **Section 61G15-27.001** of the **Florida Administrative Code** dated August 17, 2020, signed and sealed by Anthony Lynn Miller, P.E.

G. OTHERS

1. Notice of Acceptance No. **17-1219.37**, issued to WinDoor, Inc. for their Series "9000 Shallow 180° Thermally Broken" Clipped Aluminum Tube Mullion - L.M.I., approved on 02/22/18 and expiring on 10/03/23.

Sifang Zhao, P.E.
Product Control Examiner
NOA No. 20-0826.10
Expiration Date: October 03, 2023
Approval Date: November 19, 2020

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE 6TH EDITION (2017) AND 7TH EDITION (2020) INCLUDING THE HVHZ.
2. WOOD FRAMING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
3. ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
4. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
5. DESIGN PRESSURE AND INSTALLATION DETAILS SHOWN IN THIS DOCUMENT APPLY ONLY TO MULLION. FENESTRATION UNITS MUST BE APPROVED UNDER SEPARATE APPROVAL.
6. SINGLE WINDOW UNITS TO BE MULLED ARE NOT LIMITED TO THOSE SHOWN IN THIS DRAWING. WINDOW UNITS MUST BE MANUFACTURED BY WinDoor INC.
7. DESIGN PRESSURE OF MULLED UNIT SHALL BE CONTROLLED BY THE LESSER DESIGN PRESSURE OF THE MULLION OR THE INDIVIDUAL FENESTRATION UNIT.
8. UNITS MAY BE MULLED TOGETHER INDEFINITELY AS LONG AS SINGLE UNIT WIDTH AND HEIGHT ARE NOT EXCEEDED AND MULLION IS ANCHORED AS SHOWN HEREIN.
9. MULLION VERTICAL INSTALLATION IS SHOWN, MULLION MAY BE USED IN HORIZONTAL APPLICATIONS AS LONG AS DIMENSIONS INDICATED HEREIN ARE NOT EXCEEDED AND MULLION IS ANCHORED ACCORDING TO THIS DOCUMENT.

TABLE OF CONTENTS

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0826.10
Expiration Date 10/03/2023
By
Miami-Dade Product Control

Revision: UPDATES FOR 2020 FBC. UPDATED MANUFACTURING ADDRESS.

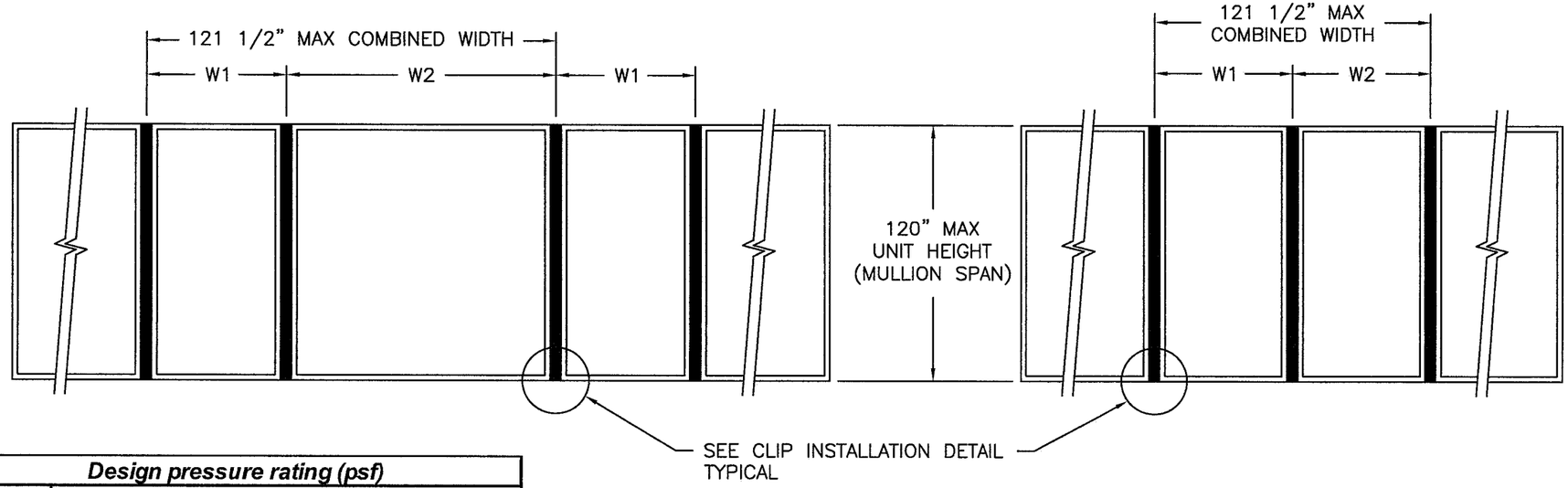
PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

WINDOOR® INCORPORATED
WINDOOR INCORPORATED
104 TRIPLE DIAMOND BLVD.
NORTH VENICE, FL 34275
(833) 554-5432

Date	08/14/20
Drawn By	ERIN KOSS
Rev	
Title	180° THERMALLY BROKEN MULLION (LM)
Desc.	9000 SERIES SHALLOW - VERTICAL
	GENERAL NOTES
DWG No.	180°VS TB-LMI-NOA
Sheet	1 OF 5
Series	MULLION

ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
8/17/20

A. LYNN MILLER, P.E.
P.E.# 58705



Design pressure rating (psf)							
Mullion span (in)	Tributary width/single unit width (in)						
	24.75	30.75	36.75	42.75	48.75	54.75	60.75
	24.00	30.00	36.00	42.00	48.00	54.00	60.00
24.00	150.0	150.0	150.0	150.0	150.0	150.0	150.0
30.00	150.0	150.0	150.0	150.0	150.0	150.0	150.0
36.00	150.0	150.0	150.0	150.0	150.0	150.0	150.0
42.00	150.0	150.0	150.0	150.0	150.0	150.0	150.0
48.00	150.0	150.0	150.0	150.0	150.0	150.0	150.0
54.00	150.0	150.0	150.0	150.0	150.0	150.0	140.5
60.00	150.0	150.0	150.0	150.0	150.0	140.3	126.4
66.00	150.0	150.0	150.0	150.0	143.2	127.5	114.9
72.00	150.0	150.0	150.0	149.7	131.3	116.9	105.3
78.00	150.0	150.0	150.0	133.2	116.8	104.0	93.7
84.00	150.0	150.0	133.6	114.9	100.7	89.7	80.8
90.00	150.0	139.1	116.4	100.1	87.7	78.1	70.4
96.00	150.0	122.3	102.3	87.9	77.1	68.7	61.9
102.00	134.5	108.3	90.6	77.9	68.3	60.8	54.8
108.00	120.0	96.6	80.8	69.5	60.9	54.3	48.9
114.00	107.7	86.7	72.5	62.4	54.7	48.7	43.9
120.00	96.8	77.9	65.2	56.0	49.1	43.8	39.4

LARGE AND SMALL MISSILE IMPACT RATED (HVHZ)

DESIGN PRESSURE TABLE INSTRUCTIONS:

1. DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
2. DETERMINE TRIBUTARY WIDTH AND MULLION SPAN BASED ON PRODUCT TO BE INSTALLED. SEE FORMULA FOR TRIBUTARY WIDTH.
3. LOCATE MULLION SPAN (UNIT HEIGHT) AND TRIBUTARY WIDTH. AT THE INTERSECTION OF ROW AND COLUMN CONTAINING THE MULLION SPAN AND TRIBUTARY WIDTH RESPECTIVELY IS THE MULLION RATING FOR PRODUCT IN STEP 2. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.

$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2}{2}$$

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By
Miami-Dade Product Control

Revision: NO CHANGES THIS SHEET.

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

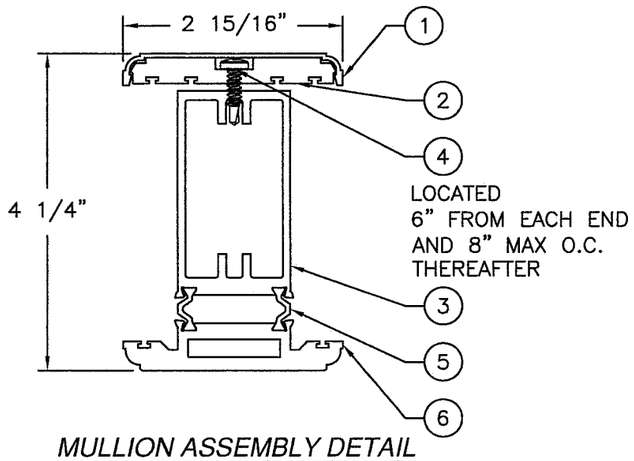
WINDOOR® INCORPORATED
WINDOOR INCORPORATED
104 TRIPLE DIAMOND BLVD.
NORTH VENICE, FL 34275
(833) 554-5432

Series	Desc. / Title	Sheet	DWG No.	Drawn By	Date	Rev.
180°VS TB-LMI-NOA	180° THERMALLY BROKEN MULLION (LM) 9000 SERIES SHALLOW - VERTICAL ELEVATION & DP CHART	2 OF 5	MULLION	ERIN KOSS	08/14/20	

ANTHONY LYNN MILLER LICENSE No. 58705 STATE OF FLORIDA PROFESSIONAL ENGINEER
8/17/20
A. LYNN MILLER, P.E.
P.E.# 58705

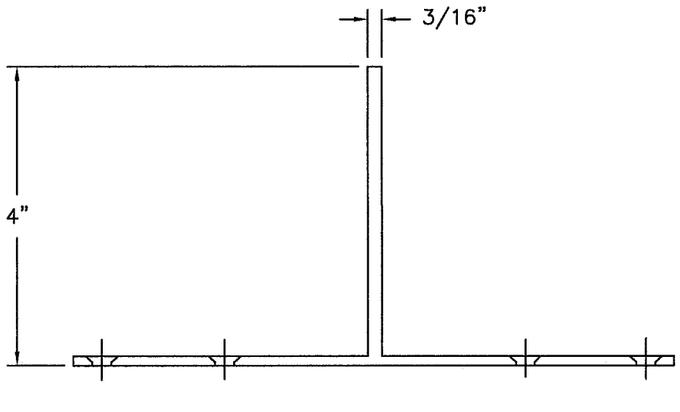
BILL OF MATERIALS

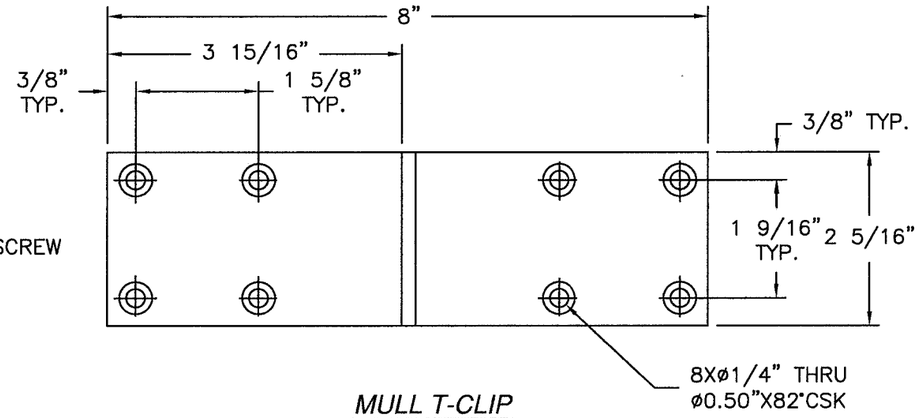
ITEM NO.:	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1	S-49673	180° FIELD MULL PLATE COVER	KEYMARK	ALUMINUM 6063-T6
2	S-49672	180° FIELD MULL PLATE	KEYMARK	ALUMINUM 6105-T6
3	H-12329	180° MULL INTERIOR	KEYMARK	ALUMINUM 6063-T6
4	131009	#10X3/4" PH SELF DRILLING SCREW		STAINLESS STEEL
5		14.6 MM THERMAL STRUT	TECHNOFORM	NYLON POLYAMIDE (PA 66 GF25)
6	H-12328	180° MULL EXTERIOR	KEYMARK	ALUMINUM 6063-T6



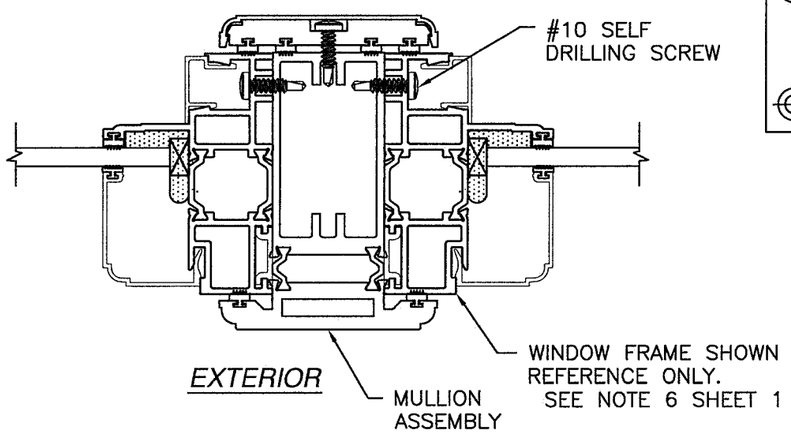
MULLION ASSEMBLY DETAIL

MOMENT OF INERTIA: 7.612in^4
(MI PER TIR-A8 SOFTWARE)
EFFECTIVE MI: 6.672in^4
(EFFECTIVE MI PER TESTING)





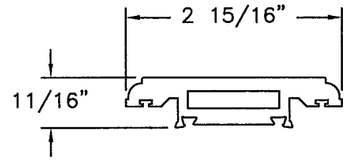
MULL T-CLIP
ALUMINUM 6063-T6 .125" THICK



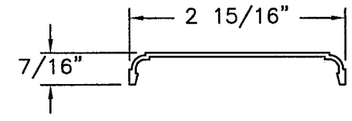
EXTERIOR

WINDOW TO MULLION INSTALLATION DETAIL

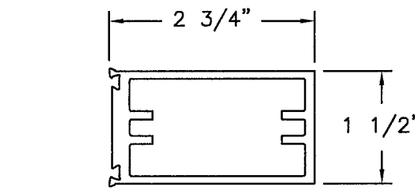
WINDOW FRAME SHOWN FOR DETAIL PURPOSES ONLY, MULLION IS NOT LIMITED TO THIS PRODUCT



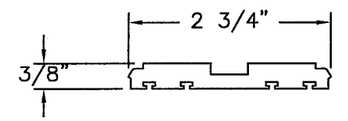
180° MULL EXTERIOR (H-12328)
ALUMINUM 6063-T6 .180" THICK



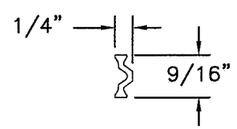
180° MULL PUSH BAR COVER
ALUMINUM 6063-T5 .110" THICK



180° MULL INTERIOR (H-12329)
ALUMINUM 6063-T6 .125" THICK



180° MULL PUSH BAR
ALUMINUM 6105-T5 .234" THICK



14.6MM THERMAL STRUT
NYLON POLYAMIDE .070" THICK

PRODUCT REVISED
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Revision: NO CHANGES THIS SHEET.

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
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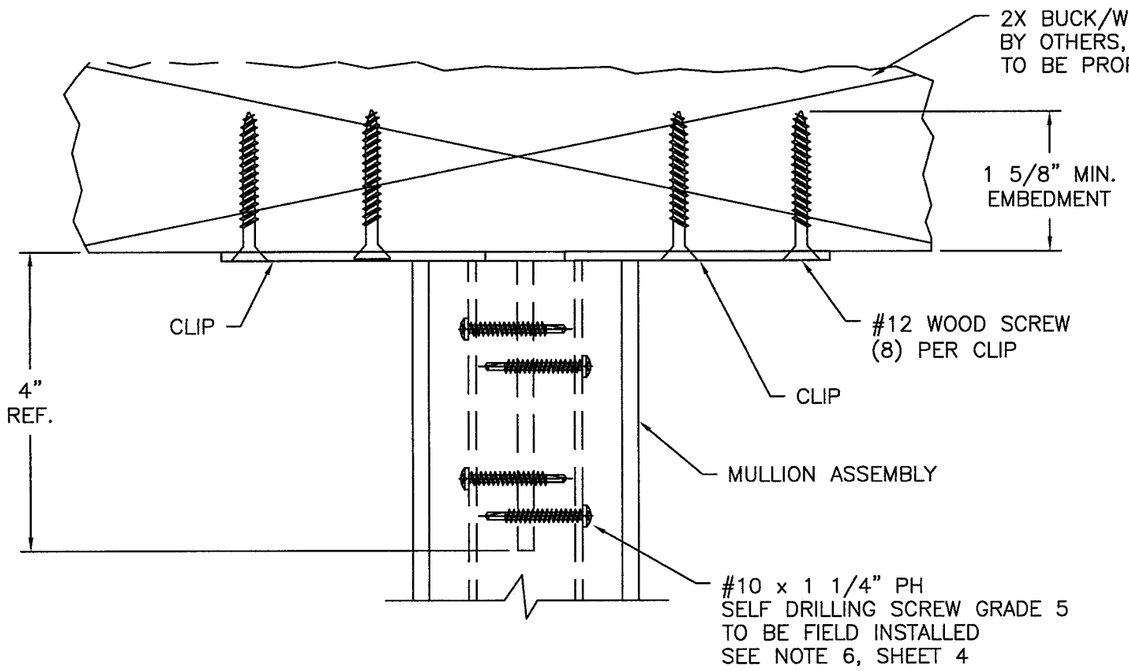
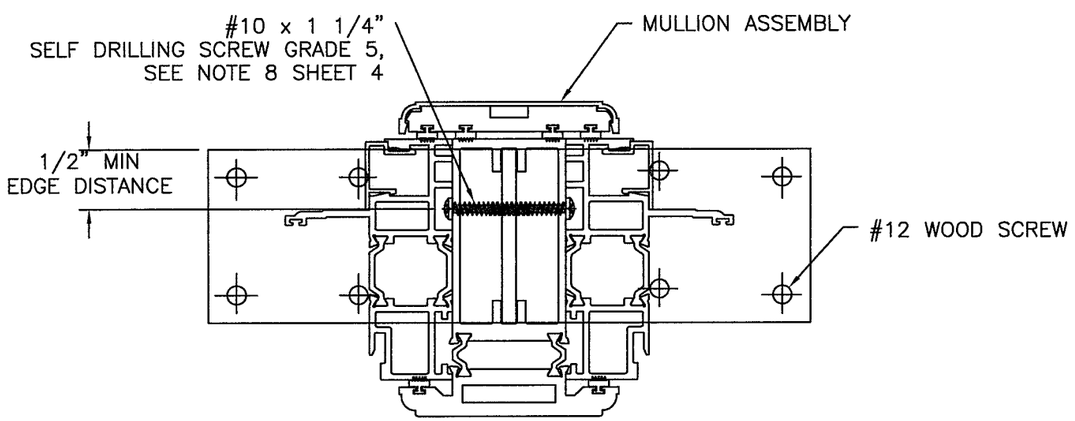
Series	Title	Date	Rev
MULLION	180° THERMALLY BROKEN MULLION (LM) 9000 SERIES SHALLOW - VERTICAL	08/14/20	180°VS TB-LMI-NOA
Sheet	Desc.	Drawn By	
3 OF 5	BOM & EXTRUSIONS	ERIN KOSS	
		DWG No.	

ANTHONY LYNN MILLER LICENSE No. 58705 STATE OF FLORIDA PROFESSIONAL ENGINEER
8/17/20
A. LYNN MILLER, P.E.
P.E.# 58705





EXTERIOR

CLIP INSTALLATION DETAIL

2X BUCK/WOOD FRAMING, TOP & BOTTOM SIMILAR

ANCHORING NOTES:

1. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #12 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 5/8" MINIMUM EMBEDMENT. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS SHEET 4.
2. FOR ANCHORING INTO CONCRETE USE 1/4" ELCO CRETE–FLEX TAPCON WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT WITH 2 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS SHEET 5.
3. FOR ANCHORING INTO METAL STRUCTURE USE #12 ITW TEK SELF DRILLING SCREW GRADE 5 WITH SUFFICIENT LENGTH TO ACHIEVE 3–THREADS MINIMUM BEYOND METAL FRAMING. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS SHEET 5.
4. FOR ATTACHING WINDOW UNITS TO MULLION USE #10 SELF DRILLING SCREWS GRADE 5 WITH SUFFICIENT LENGTH TO ACHIEVE A MINIMUM EMBEDMENT OF THREE THREADS PAST THE MULLION WALL. LOCATE SCREWS 6" FROM EACH MULLION END AND 24" MAX. O.C. THEREAFTER. STAGGER SCREWS AT EACH WINDOW.
5. FOR WINDOW AND DOOR UNITS ANCHORING SCHEDULE REFER TO WINDOW AND DOOR APPROVED INSTALLATION INSTRUCTIONS.
6. ALL FASTENERS TO BE CORROSION RESISTANT.
7. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:
   A. WOOD – MINIMUM SPECIFIC GRAVITY OF G=0.42
   B. CONCRETE – 3,350 PSI MINIMUM
   C. METAL STRUCTURE – STEEL 16GA. (.063") 33KSI MINIMUM OR ALUMINUM 6063–T5 1/8" THICK MINIMUM.
8. TO ATTACH MULLION TO CLIP USE (4) #10 x 1 1/4" SELF DRILLING SCREWS GRADE 5 PER CLIP. SCREWS MUST BE FIELD INSTALLED. HOLES FOR SCREWS ARE NOT PRE–DRILLED BY MANUFACTURER.

PRODUCT REVISED
as complying with the Florida Building Code
NOA–No. 20-0826.10
Expiration Date 10/03/2023
By CJ
Miami–Dade Product Control

Revision: NO CHANGES THIS SHEET.

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

WINDOOR® INCORPORATED
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104 TRIPLE DIAMOND BLVD.
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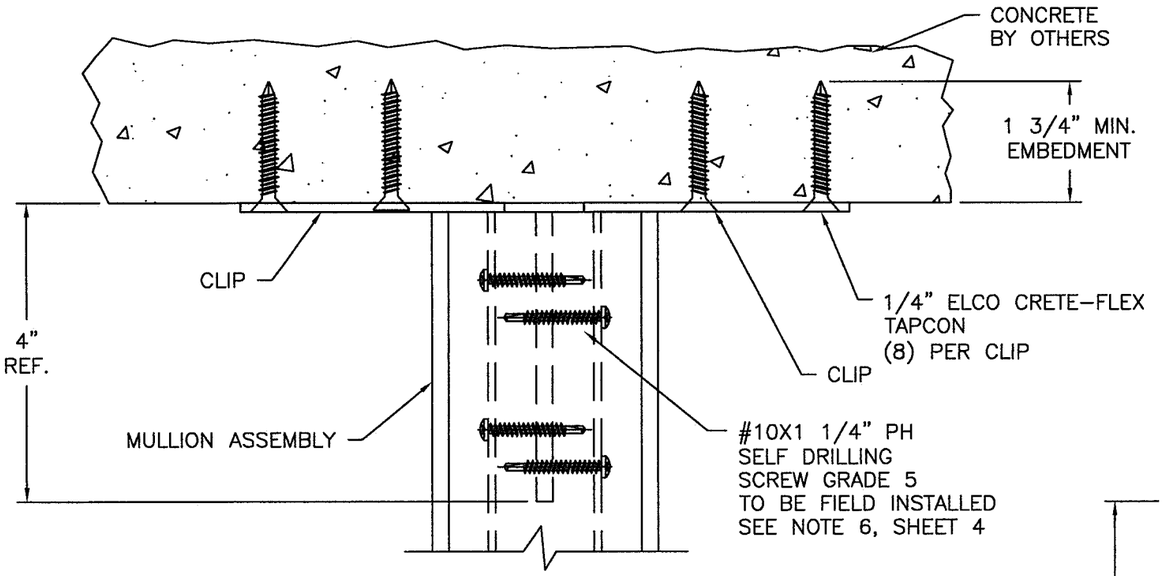
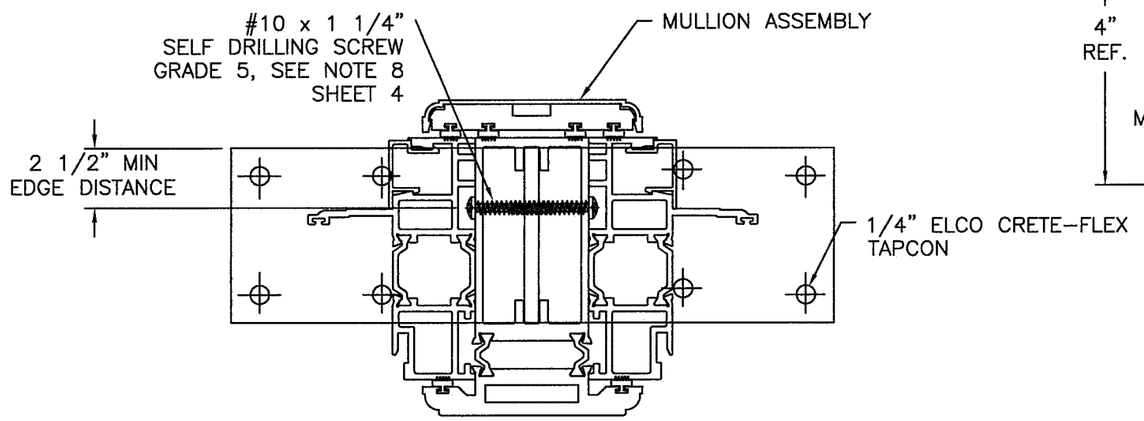
Title: 180° THERMALLY BROKEN MULLION (LM)
9000 SERIES SHALLOW - VERTICAL
Desc.: INSTALLATION DETAILS
Series: MULLION
Sheet: 4 OF 5
DWG No.: 180°VS TB-LMI-NOA
Drawn By: ERIN KOSS
Date: 08/14/20
Rev.:

ANTHONY LYNN MILLER LICENSE No. 58705 STATE OF FLORIDA PROFESSIONAL ENGINEER
8/17/20
A. LYNN MILLER, P.E.
P.E.# 58705

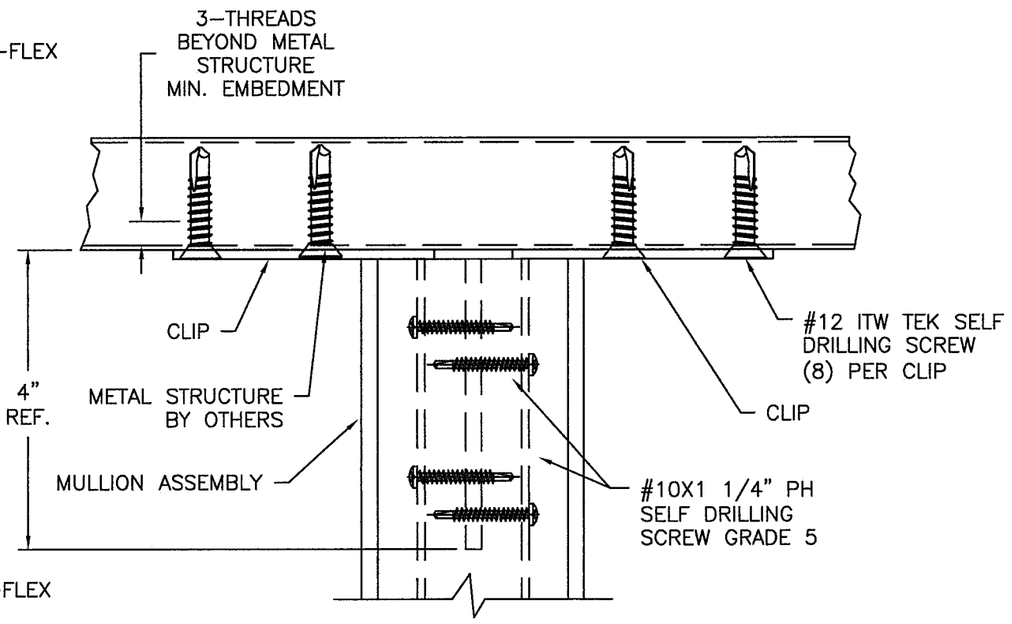


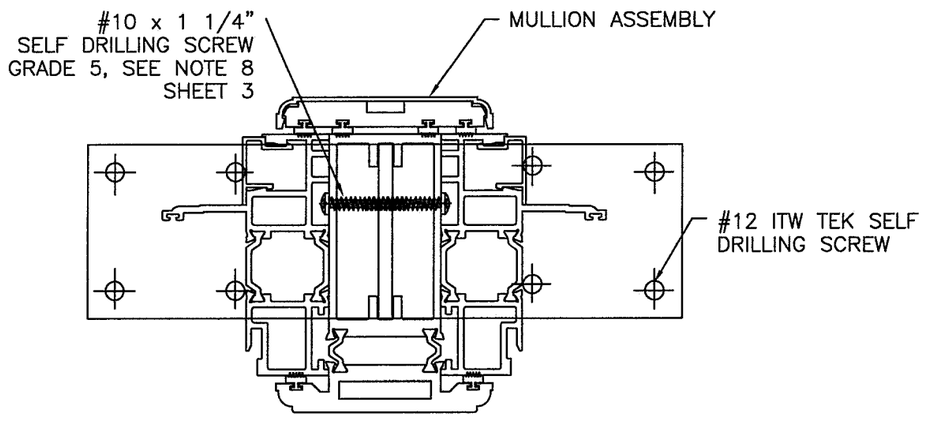


EXTERIOR

CLIP INSTALLATION DETAIL

CONCRETE INSTALLATION, TOP & BOTTOM SIMILAR





EXTERIOR

CLIP INSTALLATION DETAIL

METAL STRUCTURE, TOP & BOTTOM SIMILAR

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0826.10
Expiration Date 10/03/2023
By
Miami-Dade Product Control

Revision:	
	NO CHANGES THIS SHEET.

PREPARED BY A. LYNN MILLER
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Series	Desc.	Title	Sheet	DWG No.	Drawn By	Date	Rev.
MULLION	INSTALLATION DETAILS	180° THERMALLY BROKEN MULLION (LM) 9000 SERIES SHALLOW - VERTICAL	5 OF 5	180°VS TB-LMI-NOA	ERIN KOSS	08/14/20	

ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
8/17/20

A. LYNN MILLER, P.E.
P.E.# 58705